

Community Recycling Opportunities



Producing 160 million tons of solid waste each year, the U.S. will fill about a third of the its 6,000 landfills within 5 years. Solving this problem by doing what we've always done -- finding more landfill sites -- consumes valuable land, and often pollutes groundwater. Worse, it wastes useful and valuable resources -- much of the material we discard as waste. Countries where land is more scarce are taking a different approach: Japan recycles more than 50% of its trash, Western Europe approximately 30%. But the U.S. recycles only 10%. Many Americans wonder why recycling is mandatory in only 10 states.

Rocky Mountain Institute's **Economic Renewal Program (ER)** offers tools with which communities improve their economic conditions by taking actions that are good for the environment and good for business. One focus of ER is community waste management. ER will soon offer materials -- the *Waste Workbook* and *Waste Casebook* -- to help rural communities identify opportunities for recycling, composting and other waste management that improves the local economy. A few examples from the casebook are offered here.

St. Jude Polymer, in Frackville, Pennsylvania, recycles soft-drink bottles made of a plastic called PET (polyethylene terephthalate). Named for the patron saint of lost causes, the company started in a garage as a part-time enterprise. The bottles are ground into flakes. The PET is separated from the polyethylene base material, formed into pellets, and marketed to plastic manufacturers for everything from fiberfill to auto parts. St. Jude has also begun producing plastic sheet for blister pack, the clear plastic that covers consumer products such as toys. The company hopes to market its processing system throughout the U.S. and Europe.¹

In 1965, **Riverview, Michigan** had two problems: First, the city was transporting its solid waste 25 miles, at considerable cost. Second, local residents wanted more community recreational facilities. City workers suggested a solution to both: build trash hills as part of a golf course and to serve as slopes for sledding and skiing.

After ecological and economic studies deemed the project viable and voters approved a referendum, equipment and land for the project were purchased. Twelve communities within a ten-mile radius contracted to dispose of their solid waste on the Riverview Land Preserve. The venture, which also receives waste from private contractors, has generated over \$35 million in revenues since 1968. The 27-hole golf

course and the sledding hills are complete. The ski slope has two chair lifts, with additional development planned. The Preserve has accumulated 19 million cubic yards of material and has room for another 15 million cubic yards. Disposal of trash on the Preserve is expected to last until 1993, by which time the city hopes to have increased its recycling activity.²

Between 1981 and 1987, landfill space in **Perkasie, Pennsylvania** grew scarce as its 6,200 residents disposed of more and more trash. The cost of garbage disposal rose 900% to \$58.95 per ton. Town leaders proposed an incinerator, but public opposition killed it. Meanwhile, Perkasie was experiencing an influx of new residents who could not afford to live in Philadelphia's closer suburbs.

Finding no federal or state help, Perkasie's town manager decided to experiment: The town charged \$1.50 per bag of garbage at the curb, but charged nothing for pick up of recyclable materials. Trash pickups were reduced from twice a week to once. The second pickup accommodated recyclables only. As an added incentive, the town provides white buckets for these recyclable materials. Though, per-bag fees were not new, Perkasie was the first town to link fees with the threat of fines.

The program was overwhelmingly successful, reducing the amount of trash coming into its landfill by more than half. It also changed people's attitudes. Perkasiens now save newspaper, cardboard, glass bottles and

aluminum cans. They compost food waste, leaves and grass clippings. They buy fewer rolls of paper towels and avoid cosmetics and other elaborately packaged products. When they buy soft drinks or beer, they prefer aluminum cans and returnable plastic. And they recycle their junk mail, bundling it with the newspaper.³

Located in rural Wisconsin, Sauk County is the site of the **Wisconsin Intercounty Nonprofit Recycling Company**. WINR serves the 43,000 residents of Sauk County and two towns in Dane County. It started in 1978, after Mildred Zantow spent six weeks in Japan. She noticed that trash is separated and that different categories of recyclables are collected each day. On returning to Baraboo in Sauk County, she became a recycling activist.

Ms. Zantow observed that the county landfill contained large volumes of plastics, mostly from plastic manufactures located in the area. One of those plastic companies agreed to purchase her recycled plastic if she ground it first. Determined to make recycled plastic a reality, she cashed in her life insurance policy and bought a grinder. Taking on a partner, she established E-Z Recycling. The partners soon expanded the business, accepting aluminum, glass, newsprint, cardboard, grease, and oil. With two assistants, they collected the materials, baled cardboard, and cleaned plastic milk jugs. They made the project work! In 1982, E-Z became part of a larger organization, WINR, where Ms. Zantow now serves as volunteer manager. Baraboo, Sauk City, Prairie du Sac,



and other communities are served by this regional endeavor.

Today, WINR receives recyclable materials from:

- Two mandatory, curbside, source-separation programs, in which there is 95 percent participation.
- Two towns with voluntary, curbside pickup.
- Five drop-off satellite centers that are staffed twice a week. The recyclables are sorted and put into trailers. Then the trailers are hauled to WINR to be processed and marketed.
- Two Dane County garbage haulers who bring recovered materials.

Each town that participates in WINR is governing and represented by a board of directors. Six people are paid; 35 are volunteers, working six at a time. The Wisconsin Department of Natural Resources helps the program by developing educational materials. In 1985, Sauk County helped fund WINR.

WINR recycled over 12,000 tons of materials in 1988, more than 200 tons above their 1987 volume. In mandatory collection programs, over 30 percent of all household, commercial, and industrial recyclable materials are being recycled.

Sauk County's program is unique because it relies mostly on volunteers -- primarily retirees. The company does not pay for any recovered materials. The citizens of Sauk County do not expect to be paid. Further, there is no charge for leaving recyclables. In the future, however, a small tipping fee may be established.

WINR is about to embark on a unique new project to help local drought-stricken farmers. Working closely with the University of Wisconsin Extension Service, the company will shred newsprint for use as animal bedding in barns. The university is designing a shredder/baler unit for this purpose. Shredded

and baled newspaper will be picked up by farmers, free of charge. To enhance this and its other operations, the recycling enterprise is moving to larger quarters.

Two of the company's most serious obstacles have been public apathy and low market prices. To overcome apathy, educational programs are presented to schools and civic groups. This seems to work well in Wisconsin small towns and rural areas, where people are easily informed about the problems caused by excessive waste and want to be good neighbors. Finding new markets, on the other hand, takes a lot of hard work!⁴

For more information on the Economic Renewal Program, contact Rocky Mountain Institute, 1739 Snowmass Creek Road, Snowmass, CO 81654.

Rocky Mountain Institute is an independent, nonprofit research and educational foundation located in Old Snowmass, Colorado. Its mission is to foster the efficient and sustainable use of resources as a path to global security.

RMI's primary concerns are energy, water, agriculture, community economic development, national security, and their inter-connections. RMI seeks ideas that transcend ideology and help people solve complex problems through collective action and their own common sense.

1 Jim Glenn, "St. Jude and the Plastic PET," *Biocycle*, August 1987, pp. 38-9.

2 "From Rubbish to Riches," *Highlights*, September 1983. Also telephone interview with former city manager Jack Shoup, May 1985.

3 Bill Paul, *The Wall Street Journal*, Wednesday, June 21, 1989, pg. 1.

4 Recycling Works! State and Local Solutions to Solid Waste Management Problems, United States Environmental Protection Agency, Office of Solid Waste, Washington, D.C. 20460, January 1989.

1. The first part of the paper discusses the importance of the study and the objectives of the research.

2. The second part of the paper describes the methodology used in the study, including the data collection and analysis techniques.

3. The third part of the paper presents the results of the study, which show a significant positive correlation between the variables.

4. The fourth part of the paper discusses the implications of the findings and provides recommendations for future research.

5. The fifth part of the paper concludes the study and summarizes the main findings.

6. The sixth part of the paper provides a detailed discussion of the limitations of the study and the potential sources of error.

7. The seventh part of the paper discusses the practical applications of the study and the potential for future research.

8. The eighth part of the paper provides a detailed discussion of the theoretical implications of the study and the potential for future research.

9. The ninth part of the paper discusses the practical applications of the study and the potential for future research.

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19. The nineteenth part of the paper discusses the practical applications of the study and the potential for future research.



